Big Cypress National Preserve Greening Workshop and Charrette March 26-27, 2002

Final Report



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Acknowledgements

This workshop/charrette was a true collaboration – it could not have happened without the hard work and creative ideas of many people. Among those who were most actively involved:

At Big Cypress:

Carol Clark and Terry Saunders with support from John Donahue, Superintendent Tom Thacher and David Hamm for on-site computer support

At NPS Headquarters

Shawn Norton, Office of the Director NPS

At the U.S. Environmental Protection Agency Julie Shannon, Pollution Prevention Division

At the National Recreation and Parks Association Karen Miller

Speakers from the National Park Service

Wendy Berhman, NPS Concessions Program Center Warren Brown, NPS Park Planning and Special Studies Kent Bullard, Channel Islands NP Sonya Capek, Pacific West Region Marc Koenings, Gateway NRA Ed Walls, Pt. Reyes NS

Other experts consulted

Brian Feeney, Gateway NRA
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Michael Schene, Intermountain Region
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Lou Delorme, NPS WASO Park Operations and Education
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James Crockett, Denver Service Center

Contractors

Gail A. Lindsey, FAIA, Design Harmony, Inc. Joel Ann Todd, Environmental Consultant Mike Shor, Green Seal

Big Cypress National Preserve Greening Workshop and Charrette March 26-27, 2002 Marco Island, Florida

BACKGROUND

The National Park Service, U.S. Environmental Protection Agency, and National Recreation and Parks Association collaborated in sponsoring this workshop and charrette at Big Cypress National Preserve. It was the pilot test of the workshop and charrette design; based on the lessons learned at Big Cypress, the workshop and charrette will be revised and offered at other Centers of Environmental Innovation around the country. Big Cypress National Preserve is one of 20 Centers of Environmental Innovation. These Centers will be models for increasing knowledge of the best environmental, sustainable, and conservation practices and products.

SUMMARY OF THEMES

Several themes were emerged from the discussion. These include:

- Big Cypress enjoys support for sustainable plans and practices at the highest levels Superintendent John Donahue, Carol Clark, Terry Saunders, and others are "true believers." Additionally, throughout the charrette, support was evident from all levels of preserve employees. Successful implementation of sustainable plans and practices needs support not only at the "highest levels" but at all levels.
- A preserve-wide "green team" could help keep momentum high and continue to monitor implementation of green strategies. Participants in the workshop and charrette are potential candidates for the green team and this report is a starting point or preliminary roadmap for their work. Setting specific targets and goals combined with defining "champions" and "green teams" is critical for success.
- Enthusiasm for greening activities is high among most areas of responsibility represented at the workshop and charrette; however, staff need access to more information, tools, and, in some cases, training to help them select the best greening strategies. Colleagues at other parks are excellent sources for the types of information needed and can act as mentors, giving hands-on/practical advice on "what works" in park settings.
- The importance of interpretation is recognized by all, but resources might not be available to pursue all of the ideas generated by charrette participants. With support from management, other divisions, and outside partners creative ways of developing and implementing these interpretive efforts should be explored to communicate the Big Cypress greening story to visitors and employees. The major positive sustainable impact parks and preserves can have is on the numerous visitors "taking home and putting into practice what they have learned at the parks and preserves."
- Greening of procurement and purchasing is a preserve-wide effort; the procurement group can work with other divisions in evaluating, selecting, finding, and purchasing green alternatives and in developing greener contracts and leases. Sharing this and other green

information park-wide in a consistent manner is of utmost importance to the success of these efforts.

In summary, Big Cypress is in a position to exercise leadership as a Center for Environmental Innovation and, over time, to provide expertise and assistance to other parks and to educate its many visitors.

CHARRETTE PROCESS

The event included a one-day workshop and one-day hands-on charrette. The Agenda is presented in Appendix A. It was preceded by an optional half-day tour of the Preserve. The event drew 43 participants, including 12 from Big Cypress and experts from around the country (a complete list of participants is included in Appendix B). Speakers and participating experts included some of the leaders on sustainability within the National Park Service.

Monday, March 25, 2002



Terry Saunders led a tour of the Preserve on Monday afternoon. The tour included the site of a planned Visitor Contact Center, the maintenance area, the existing Visitor Center, staff housing, and other features. Terry also took the group on a swamp buggy tour of the new trails that were under construction for off-road vehicles (ORVs). The tour highlighted some of the Preserve's successes, including a new recycled water car wash, and its continuing challenges, such as the restoration of existing ORV trails. The tour was very helpful in introducing

participants to Big Cypress. All agreed that the tour should become an integral part of the event, rather than an optional one.

Tuesday, March 26, 2002

John Donahue, Superintendent of Big Cypress, Karen Miller, National Recreation and Parks Association, and Shawn Norton, National Park Service, welcomed the group. In his welcome, John emphasized that the NPS mission is to be "demonstrators, not regulators," and to spread the message of sustainability to the more than 280 million people who visit parks each year. Shawn described three goals for the workshop and charrette: first, to help the sponsors improve the design of the event through this pilot; second, to help participants to take this new information back to their parks; and third, to help Big Cypress during the charrette.

Following introductions of participants, the group watched a video, *Growing Smart/ Building Green*, that showed the Chesapeake Bay Foundation's new headquarters building, the Philip Merrill Environmental Center. The video sparked lively discussion of strategies that were and were not appropriate for NPS facilities. Participants also noted that the video did not provide an overview of "lessons learned" and suggestions of how things might be done differently in future projects.

John Donahue presented an overview of Big Cypress and its current challenges. In addition to stressing the critical importance of water in the area, he focused on the issue of off-road vehicles and the Off-Road Vehicle Management Plan that is in final stages of development. There are currently 23,000 miles of tracks in the Preserve that have been made by ORVs. These tracks have damaged or destroyed significant portions of the fragile ecosystems that comprise the Preserve. Big Cypress is putting in 400 miles of primary trails plus a few smaller ones needed to reach camps and ORV use will be restricted to these trails. The trails will be at or



below grade to enable water to flow unimpeded. Following John's presentation, Terry Saunders discussed the Preserve's response to its environmental audit and other environmental initiatives. These included a new car wash that uses recycled water and specific green strategies to be used in the new Visitor Contact Center buildings to increase energy efficiency, use recycled materials, etc. Terry also showed the group the Preserve's *Design Guidelines* that incorporate green strategies and a notebook that contains all of the plans needed for environmental compliance. He offered to send copies to members of the group.



Marc Koenings, Superintendent at Gateway, talked about the importance of the NPS mission and message in the "bigger picture." He discussed three key issues: global climate change, water, and toxic materials, noting, for example, that if we simply increased the efficiency of the total vehicle fleet by 10 mpg, we could eliminate our dependence on imported oil. Marc stressed the importance of education and getting people involved in these issues. As an example, he described Stanley Selengut's development in the Virgin

Islands in which visitors become immediately aware of their energy and water use, and become involved in conservation.

For the remainder of the day, experts presented key principles and practical examples in eight topic areas: planning for sustainability, transportation, facilities design and construction, operations and maintenance, concessions, interpretation and education, and procurement. Copies of their presentations are included in Appendix C. Highlights include the following:

Planning. Gail Lindsey outlined the principles of connecting to the bigger picture outside the park, including sustainability in all planning efforts from General Management Plans to Annual Performance Plans, and obtaining interdivisional buy-in. She also described Denali National Park's recently completed Sustainability Plan. Warren Brown described opportunities for linking sustainability to all of the



various plans that are required within the NPS, stressing the importance of the linkage to the budget in the Strategic Plan and the Annual Performance Plans. Warren discussed innovative efforts at Gettysburg NMP, Mt. Ranier NP, Mohave NP, Denali NP, and the Cain River Creole NHP.

- *Transportation*. Marc Koenings outlined the principles of establishing effective transportation systems and routes, identifying and implementing alternative transportation modes and fuels, and educating staff, visitors, and other parks about successes. This requires an internal analysis of fleet needs and external analysis of connections to the community and visitors. He discussed examples at Gateway NRA, Zion NP, Assateague Island NS, and Alcatraz.
- Facilities Planning and Construction. Gail Lindsey discussed the principles of establishing a green process for planning and construction, using the LEED Green Building Rating tool, and educating other parks and visitors about green strategies. She described innovative facilities such as the Visitor Center at Tom's Cove in Assateague Island NS, the Visitor Center at Zion NP, and the Thoreau Center at Golden Gate NRA.
- Operations and Maintenance. Kent Bullard described the opportunities for reducing costs, providing a safer workplace for staff, reducing regulatory burdens, reducing liability issues, and reducing staff workload through greening O&M. He suggested that the first step was to look at what products and processes were currently in use and to identify what changes could be made. Kent also stressed that "a series of small successes can win the war." He offered many specific examples and resources, including Dinosaur NM recycling or reusing everything from the auto shop, Mt. Ranier using soy based hydraulic oils, and others. Ed Walls added the need to evaluate and critique new products and processes. He also described Yosemite NP's efforts to go "all green."
- Concessions. Gail Lindsey introduced this session by stressing the importance of including concessioners in planning for sustainability and creating partnerships with concessioners to demonstrate sustainable practices to visitors. Wendy Berhman then described new contracting requirements for concessioners that will affect the 660 concessions contracts in 130 parks. These new requirements include an



Environmental Management Plan in each contract. Wendy also described the new Concessions Environmental Audit Program that is just getting underway.

• Interpretation and Education. Joel Ann Todd summarized principles and examples of interpretive programs on sustainability. She noted that these programs can be designed to add to the visitor experience, explain a change that the park has made (such as the ORV trails at Big Cypress), enhance the park's "story" and mission, and educate visitors on sustainability and actions they can take home. She also described various different methods that can be used in interpretive programs. Examples included the Zion NP Visitor Center and the Statue of Liberty concessions operation. The group also described opportunities, such as the Junior Ranger program, environmental education programs, and others.

- Green Procurement, Contracts, and Leasing. Julie Shannon presented the opportunities and drivers for green purchasing, including the Federal government's enormous influence on markets with its \$250 billion per year in purchasing. She also discussed definitions of "environmentally preferable" products and services and Federal government pilot programs to promote green purchasing. Julie also presented some specific tools. Mike Shor distributed an Environmentally Preferable Purchasing Resource Notebook to each participant. The notebook contained lists of environmentally preferable products, contract language, and product guides that could be used by procurement personnel. Finally, Sonya Capek described the Pacific West Region's efforts in green purchasing, including a policy statement, Green Janitorial Products and Practices Guide, Best Management Practices Guide, EPP Guide, and EPP Training.
- Environmental Management Systems (EMS). Margie Meares and Terry McElrath agreed to present a brief session on EMS in response to requests for information on this topic. An EMS is an umbrella that covers all of the topics included in the workshop and provides a process for tracking plans and progress, and encouraging continual improvement. They described the approach used by the Blue Ridge Parkway to identify and prioritize environmental tasks in the EMS. First, all environmental impacts are identified, then actions and targets are designed to address them. Roles and responsibilities are assigned and then specific plans and operating procedures are developed. Document control is an important component so that staff can easily find policies and procedures.

At the end of the day, the group was split into work groups to address these seven basic topics (there was no separate group on EMS). The groups on planning and transportation were combined. There was insufficient time to begin this task, but groups selected a spokesperson and notetaker.

Wednesday, March 27, 2002

The group met on Wednesday morning to hear their assignment. Each group was to discuss and summarize the following:

- Baseline conditions what are the existing practices, facilities, infrastructure, staffing levels, etc.?
- Vision what is the overall target that the group would like to achieve in the future?
- Short-term, mid-term, and long-term goals what specific goals and actions does the group propose to reach the vision?
- Champions who will take responsibility for each goal and action?
- Measures of success how will we know if the activities have been successful? How is that success defined?

At lunchtime, each group presented its "baseline." At the end of the day, each group presented its vision, goals, and champions. Several themes emerged:

- The need for green teams to keep the momentum going.
- The importance of communicating results of the workshop and charrette to other staff.

- The importance of including an interpretive and educational element for new green initiatives to ensure that visitors are reached by the message.
 A desire to be a leader and model for other parks, including other national parks as well as
- state and local parks.

More detailed results follow.

Summary of Results

Transportation Worksheet

Vision: Restore and protect park landscape and hydrology. Create education corridors along major roads. Develop innovation model to showcase.

Greening	Baseline		Goals/Actions		Success Indicators
Targets		Short-Term	Mid-Term	Long-Term	
Modes	 300K visitors pass through by car and bus Park owned plane Large ORV population 	 Perform a park transportation study [planning] Implement ORV plan [all] 	 Design a loop road tram [planning and concessions] Emission standards for 	•	•
			ORV [planning]		
Pathways	• Interstate 75 and State Road 41 pass through park	Reduce number of back- country roads			
	Many unpaved roads400 miles of trails (from 23,000)				
Fuels	Gasoline predominant. Biodiesel available	 Increase use of biodiesel [FM] Alternative fueled ORVs [RM/FM] 	Biofuel NPS fleet [FM]Alternative fueled ORVs [RM/FM]		
Education and Interpretation	• None	Partnership with tourism industry [interpretation and technology]	Develop radio technology [interpretation and IT team]		 Informed and engaged visitors Visitor satisfaction survey Web site hits increased Increased volunteer hours

Planning Worksheet

Vision: Restore and protect landscape and hydrology. Develop innovation model to showcase.

Targets	Baseline		Objectives/Actions		Success Indicators
		Short-Term	Mid-Term	Long-Term	
Planning Documents	 1991 GMP Addition Lands GMP in progress Oil and Gas Plan draft ORV Management Plan Long-Term Interpretation Plan Fire Management Plan in rewrite process Strategic Plan Enabling legislation permits multiple uses Endangered species Native American use and occupancy 	 All plans contain theme of sustainability [all, planning lead] Implement ORV Plan [all]. Implement Addition Lands Plan [planning]. Perform a park transportation study [planning] Use recycled fill/ wetlands reclamation [RM/FM] 	 Continue data collection [RM] Use plastic lumber [FM/ fire] Create sustainable wetlands trail [FM/ Fire/ RM] 		 Number of restored acres Number of restored acres by user groups Number of camps removed
Community Participation, Connections	Collaboration with Department of Transportation, the County, DOF, Fire Department		Publicize successes and failures [public information]		Recognition by/ export of information to the public, state, media, university, peers, schools Awards Increased awareness of ecosystem management
Interdivisional Teams					Ü
Other		Prescribed fires [Fire/RM]			

Facilities Worksheet

Vision: Big Cypress will serve as a Green Technology example through employee involvement, positive resource usage, and education

- 90 large stock buildings, including pre-park, new acquisitions, and rehab
- new welcome center and boardwalks planned
- bunkhouse quarters planned
- 1 problematic LCS at Monroe Station
- Highway and 400 miles of trails
- Existing solar applications hydrology monitoring sites, weather station, lightning strike stations
- Poor recycling infrastructure
- Difficult to hire contractors

Targets	Baseline	Objectives/Actions			Success Indicators
		Short-Term	Mid-Term	Long-Term	
Integrated Approach		 Establish green team and schedule for Big Cypress Greening Plan [Terry and Carol] Generate buy-in by all [management team] Identify critical partners 	Quarterly green team reports	 All park employees are green champions All design is green design Total integration with other programs 	
Use of LEED Rating System	Guidelines in place for durability, structural integrity, recycled content	Benchmark energy costs and consumption [budget and finance] Begin use of LEED and NPS Guidelines Review Design Guidelines re LEED Review Welcome Center re LEED	 All projects incorporate LEED Design Guidelines and LEED are integrated 	 No new disturbed sites – build only on disturbed sites Restore surplus sites Minimize wetlands impacts 	6 new buildings designed with LEED
RFP and A/E criteria		Identify facilities choices with large negative impact on local environment (water) and critique A/E design (minimize water use, minimize energy use, minimize use of toxic materials, maximize			

	building user health and productivity)			
Education and Interpretation	 Create green newsletter Identify park clearinghouse person Communications tracking system [IT team] Place Global Warming and Go Greener brochures in Welcome Center and develop a facilities version Prioritize training for green buildings 	 Continue newsletter Integrate green facilities message into interpretation Green facilities video Collect data to share lessons learned 	• Solid database	 Big Cypress green program is copied Community and park users that oppose the park become advocates

Operations and Maintenance Worksheet

Vision: Get funding for an ISWAP. Expand partnerships with County and Everglades Park. Increase number of receptacles. Educate visitors through interpretive sign at each campground and education at Visitor Center and park. Attempt to recycle building materials by contracting demolition and removal for salvage. Continue adaptive reuse of existing buildings.

- Staff of 25 with 2 supervisors
- 90 buildings
- 60 miles of roads, 15 miles paved and 45 miles unpaved
- 58 miles of trails
- 55 GSA vehicles and 100 Interior vehicles (25 heavy equipment)
- 2 backcountry campgrounds (100 sites) and 4 front country campgrounds
- Auto shop
- Electrical secondary distribution and 8 backup generators
- 3 phone systems
- 1 visitor center
- utilities 29 water systems (2 major), 1 wastewater (tertiary) and 29 site treatment
- fueling stations biodiesel, unleaded, AV fuel, jet fuel

Targets	Baseline		Objectives/Actions		Success Indicators
		Short-Term	Mid-Term	Long-Term	
Environmental considerations for operations	 Solid waste/recycling Recycle glass, plastic, aluminum, cardboard, crankcase oil, tires, soy hydraulics Closed loop car wash under construction Contracted hauling – no waste stream characterization Dumping ground for neighboring communities Conditionally exempt for Haz Mat Contracted Haz Mat removal 	 Establish baseline and critique [Terry] Develop parkwide sustainability committee [Terry] Contract ISWAP [Terry] Complete car wash [Dennis] Develop partnerships with county, city, state [Hal] Develop partnerships with other parks, preserves [Hal] Develop grant initiating project proposals [Terry] 	Increase signage [sign committee] Recycling centers in each campground [Hal] Expanded and continued partnerships [Hal] Adaptive reuse of facilities Recycle building materials	Obtain adequate funding Meet Executive Orders and other mandates	• Reduce solid waste to landfill by 10% by 2005

Vehicles/Equipment • Biodiesel, unleaded gasoline, electric vehicle at headquarters, airboats, ATVs, swamp buggies	 Convert 15% of vehicles to biodiesel alternative fuel Replace % of gasoline vehicles with electric hybrid – work with GSA [Terry] Develop analysis of vehicle needs and utilization study [park management] 	Dedicate replacement vehicles for alternative fuel and sustainable energy options [Terry]	 Develop employee transit system to minimize cars entering park [park management] Develop visitor transit system [park management] 	 100% of diesel equipment using B-20 biodiesel and convert to B-100 when technology is safe and reliable 40% of gasoline use will be reduced by 2007 100% of hydraulic systems will be converted to a biohydraulic system by 2007
Water and Wastewater Cyclical replacement with energy efficient equipment Hypo disinfection Replacing distribution lines Hydro pressure systems Non-NPS customers Significant effort to get on city water	 Replace failing water distribution line [Terry] Develop project proposals to convert wells to PV-PMIS [Terry] Replace 9 failing septic systems with a regional wastewater system [Dennis] 	 Replace consumptive fixtures parkwide during rehabs [B and U] Use waterless urinals where applicable [Dennis] Construct PV systems for pumping water [Terry] 	 Construct waste collection system to convey waste to county treatment facility [Dennis] Connect to city water [Terry] Develop added capacity for fire suppression [Terry] 	• 14% of septic system will perform as designed; by 2007, 50% of park's septic system will meet compliance or be eliminated
 Energy Replacing inefficient fixtures Using Energy Star appliances Remote sites great opportunity for PV – good solar access No access to natural gas – use propane 	 Continue appliance and fixture replacement program [Dennis] Implement use of PV and passive solar water heating [Terry] Install PV for off-grid facilities [Terry] 	 Install occupancy sensors in all office space settings [Dennis] Install PV lighting fixtures for major parking lots [Terry] Research energy savings performance contracts [contracting] Replace 50% of quarters HVAC systems [Dennis] 	Convert HVAC system to high performance system in B and C wing [Terry] Comply with Executive Order 12904 [park]	• 10% of lighting replaced, 100% by 2007

	Non-toxic chemicals • Using low-VOC paints when available and applicable • CFCs reclaimed • Herbicides used	Review and update IPM plan [park staff] 100% green cleaning products and non-toxic chemicals (VOCs) [maintenance and procurement]	Research potential for removing herbicides – meet with external partners [IPM coordinator]	
Environmental/ water/ energy audits	No funding for energy audits	 Perform water/ wastewater audit of facilities [Dennis] Perform energy audit of all park structures [contracting and maintenance] 	Design review for sustainability [sustainability committee]	
Green purchasing policies and programs				
Education and interpretation		 Increase education opportunities via brochure and interpretive venues [interpretation] Educate partners and visitors about green cleaning products [interpretation] 		

Concessions Worksheet

Vision: Incorporate concessions into the Big Cypress Preserve EMS to demonstrate environmental stewardship and leadership. Diversify, increase, and expand visitor opportunities within the Preserve.

Overall Baseline:

- No existing concessions in Big Cypress Preserve
- Recreational activities that could become concessions: canoe and kayak rentals; day safaris and trips along country roads, ORVs (swamp buggies, airboat, tours), bicycling, hunting, fishing, day motor tours
- Needs include service station (fuel), food, variety store

• Everglades and nearby State parks have concessions and could offer advice and assistance

Targets	Baseline		Success Indicators		
		Short-Term	Mid-Term	Long-Term	
Concessioner environmental compliance		•	•	 Review concession operation and impact on resources Review and evaluate resource carrying capacity of the concession activity 	• Environmental performance
Revised contract language		•	Develop contract [Big Cypress team with Denver Service Center and NPS Concession Center]	Implement contract	 Financial success Balance of economics and environmental management
Concessioner participation in planning		Develop a Commercial Services Plan that advances the best environmental management and stewardship principles [Chief Ranger and CSP team]	• Finalize GMP and CSP and incorporate into Plan [Big Cypress team]	•	•
Recognition systems		•	•	•	•
Education and interpretation	Visitor survey results	•	•	Showcase alternative fuel technology	 Customer satisfaction User education about alternatives used at the Preserve

Interpretation and Education Worksheet

Vision: Sustainable management system for recreation in a fragile environment that allows for reasonable access by the public – refocus the Preserve's vision away from "high impact" recreation toward more sustainable uses and a broader range of users. Create opportunities for interpreting sustainable actions to generate more support.

- Interpretive program is 10 years old
- Staff includes supervisor, 1-3 staff, 1-3 seasonals, 3-5 volunteers

Targets	Baseline	Objectives/Actions			Success Indicators
		Short-Term	Mid-Term	Long-Term	
Sustainability messages and methods	 No programs focus on sustainability Many "silent" users – drive throughs, bird watchers, hunters, ORVs, hikers, cyclists Current interpretation uses Visitor Center, canoe trips, swamp tours, walks 6th grade education program – classroom and field Video orientation for ORV users Outreach to community groups, schools, fairs 	 Develop more active role for interpretive staff in planning to help identify and create opportunities for interpretation [Sandy] Identify and reach out to potential partners [John] Start reaching out to new visitor groups [Sandy and Deb] Interpret global warming and impacts on Big Cypress [John and Sandy] Begin consideration of ecotourism facility [John] Add sustainability messages to new ORV video [Sandy and JD] Add messages to lunch stop during education program [Lisa] Add messages to Web site [Sandy] Weave greening messages into Ranger-led activities and interpretive media [interpretive staff] 	 Develop greening messages and exhibits for new Visitor Center [Terry and Sandy] Create interpretive signs with green messages for ORV and other backcountry trail heads [Terry and Sandy] Weave green messages into new boardwalks [Terry, Sandy, partners] Develop and place messages on radio information station to reach "drive throughs" Create a CD and audio tape and driving guide that weaves in green messages [Sandy] Develop interpretive partnerships [John and Carol] 	Develop a "behind the scenes" greening tour Create eco-camps with canoe or kayak access	 Annual visitor servey Implementation of specific activities Pre and post test for educational program Number of park divisions engaged in interpretive activities Change in ORVers attitudes Implementation of specific activities
"Take home" emphasis		•	•	•	•

Procurement, Contracts, and Leasing Worksheet

Vision: "Walk the talk" – demonstrate park commitment by setting "green" example. Procurement takes the lead in educating park staff on green products and purchasing opportunities; coordinates with other divisions on educating visitors on green products and services; and serves as a mentor to other parks on green purchasing.

- Park staff want to be green and are willing to try; strong support of superintendent; Terry Saunders/Facilities is a true believer.
- Purchasing is diffuse; credit card purchases are encouraged; only supervisors have credit card purchasing authority.
- Some cooperation and coordination among South Florida parks on contracting.
- Most purchasing from GSA/GSA schedules; some purchasing from local small businesses.
- Remote location restrictive on service contracts.

Targets	Baseline		Objectives/Actions		Success Indicators
		Short-Term	Mid-Term	Long-Term	
Investigate greener alternatives	 Little planning of procurement	 Form a "green team" to deal with park-wide greening [John and Carol] Conduct an audit – what products are bought and what needs to be replaced [green team] Identify top opportunities (low hanging fruit) to buy green products [Randy and Liz] Initiate tracking system Review findings of environmental audit [Randy and Terry] Start to incorporate green factors into all contracting and purchasing [Randy and Liz] 	Get procurement staff involved in project planning/ contracting early to identify green opportunities		 By the end of 2002, all janitorial products will be green. Green team meets on a regular basis. By 2003, 70% of lubricants are green (biobased or recycled). By the end of the year, use B-100 biodiesel. Internal ausits conducted by green team on a scheduled basis. Review of environmental audit completed and schedule for corrective action in place.

Understand product life	•	•	•	New Visitor Center will incorporate green design and materials and will achieve LEED Silver rating.
cycles				
Ensure compliance • Limited knowledge of Federal requirements	•	•	•	By the end of 2002, 100% compliance with CPG/recycled content guidelines.
Develop contract/lease language	Determine when IDIQ contracts are up for renewal [Randy]	When IDIQ contracts are renewed, include green criteria [Randy]	•	All IDIQ contract renewals identified and divisions alerted about green criteria
Provide training, tools, and resources	Conduct training on greening for credit card holders, specs, etc. [Randy, Liz, Tina]	Seek out funding sources and use volunteer staff to assist with greening [Liz]		Staff will be aware of green purchasing/products In 2003 conbined call, requests for green funding will be included. Within a year, outside sources of funds will be identified. Green procurement will be added to credit card audit.
Educate and motivate	Begin to develop educational strategy and	Coordinate green team/ offer training and	•	Educational strategy in place

	materials for staff and visitors [Sandy, Liz, green team]	information with other parks in the area [Liz]		for visitors and materials drafted • Visitor Contact Center will be used as an educational opportunity for visitors. • Joint projects with other parks will be identified.
	•	•	•	•
	•	•	•	•